In the Claims:

1. (Canceled)

2. (Previously Presented) A method of reducing the effect of linear birefringence in an optical fiber, comprising:

(a) heating a length of the optical fiber; and

(b) introducing into the length of said fiber a twist having a predetermined sense of rotation and a twist angle, thereby creating a plurality of sections in said fiber; and

(c) reversing the sense of rotation of the twist between sections after an accumulated twist for previously introduced twists between sections is substantially equal to 90°.

3. (Previously Presented) The method of claim 2, wherein the twist angle between respective ends of the adjacent sections is substantially 90°.

4. (Previously Presented) The method of claim 2, wherein the twist angle between respective ends of the adjacent sections is less than 90°.

5. (Previously Presented) The method of claim 2, wherein the twist angle between respective ends of the adjacent sections is greater than 90°.

6.-10.(Canceled)

11. (Previously Presented) A method of reducing the effect of linear birefringence in an optical fiber, comprising:

(a) heating a length of the optical fiber; and

(b) introducing into the length of said fiber a twist having a predetermined sense of rotation and a twist angle, thereby creating a plurality of sections in said fiber; wherein the twist angle between respective ends of the adjacent sections is substantially equal or less than 90°.

12. (Canceled)

13. (Previously Presented) The method of claim 11, wherein a cumulative retardance along each of the sections is less than 180°.

14. (Canceled)

15. (Previously Presented) The optical fiber of claim-16 wherein a sense of rotation of the twist between sections along the optical fiber is reversed after an accumulated twist for previously introduced twists between sections is substantially equal to 90°.

16. (Previously Presented) An optical fiber with reduced effects of linear birefringence, comprising a length of optical fiber, wherein said fiber comprises a twist separating said fiber into a plurality of fiber sections, and wherein said twist is formed by heating said fiber and wherein a twist angle between respective ends of the adjacent sections is substantially equal to 90°.

17. (Previously Presented) The optical fiber of claim 16, wherein the optical fiber is a circular-cored single-mode fiber.

18. (Previously Presented) The optical fiber of claim 16, wherein an orientation of the fiber is maintained along the plurality of sections separated by said twist.

19. (Previously Presented) The optical fiber of claim 18, wherein a sense of rotation of the twist between sections along the optical fiber is reversed after an accumulated twist for previously introduced twists between sections is substantially equal to 90°.

20.-21. (Canceled)